

### **AMENDMENTS TO THE CLAIMS:**

Claims 7-10 are added herein. This listing of claims will replace all prior versions, and listings of claims, in the application.

### **LISTING OF CLAIMS:**

1. (Original) A computer system, comprising a neural network or plurality thereof trained for diagnosing endometriosis.

2. (Original) A method for diagnosing endometriosis in a subject, comprising:  
querying and examining the patient to assess the answers to at least three of the following questions:

past history of endometriosis, number of births, dysmenorrhea, age, pelvic pain, history of pelvic surgery, smoking and if yes, the number of packs/day, medication history, number of pregnancies, number of abortions, abnormal PAP smear/dysplasia, pregnancy hyperplasia, genital warts and diabetes; and

based upon the results of the answers determining whether the patient has endometriosis.

3. (Original) A computer system, comprising a neural network or plurality thereof trained for assessing the risk of delivery within a selected time period, wherein the time period is within seven or fourteen days of performing a biochemical test to measure fetal fibronectin in a sample from a pregnant subject or the time period is prior to thirty five weeks of gestation.

4. (Original) The system of claim 3, wherein the time period is within seven days of performing a biochemical test to measure fetal fibronectin.

5. (Previously Presented) The system of claim 3, wherein the time period is within fourteen days of performing a biochemical test to measure fetal fibronectin.

6. (Original) The system of claim 3, wherein the time period is prior to thirty five weeks of gestation.

7. (New) A decision support system trained for diagnosing endometriosis.

8. (New) The decision support system of claim 7 that comprises a neural network.

9. (New) A computer readable medium, comprising the decision support system of claim 7.

10. (New) A computer readable medium, comprising the neural network of claim 8.